


REMARKS

The above changes to the claims have been made to delete multiple dependency of the claims, to round out the scope of patent protection being sought, and generally to place the claims in better condition for examination on the merits.

Respectfully submitted,

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Marked-up claims 3 and 4

3. (Amended) Method according to claim 1 [or 2], **wherein** computation takes already sent data into consideration.

4. (Amended) Method according to [one of the claims 1, 2 or 3] claim 1, **wherein** either a Guard Interval or a cyclical prefix is transmitted between the data combined to blocks.

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Method of suppressing narrow frequency bands

The invention relates to a method of suppressing narrow frequency bands in fade-out ranges during transmission of data by means of a multiple carrier method, e.g. DMT (Discrete Multitone) in which a predetermined broad frequency band is divided into a plurality of subchannels having subcarriers assigned thereto and in which the data to be transmitted are modulated in the transmitter with Inverse Discrete Fourier Transform (IDFT) and are demodulated in the receiver with Discrete Fourier Transform (DFT), each subchannel being thus provided in the spectrum with a major lobe and several side lobes occurring in the range of nearby subcarriers, all the subcarriers contained in this narrow fade-out range and further subcarriers adjacent the narrow fade-out range being given a zero charge for suppressing at least one narrow fade-out frequency range.

In a plurality of data transmission systems of the art, transmission occurs by frequency-division multiple access. The methods used thereby have become known to be the multiple carrier method, Orthogonal Frequency Division Multiplexing (OFDM) and Discrete Multitone (DMT). A predetermined, broad frequency band is thereby subdivided into a host of very narrow frequency bands or subchannels, over which data may be transmitted with various methods of modulation and bit rates. To distribute the data in the transmitter the Inverse Fast Fourier Transform (IFFT) can be used and, correspondingly, to reconstruct it in the receiver, the Fast Fourier Transform (FFT). The problem therewith is the strong overlap of the subchannels in the frequency range since the side lobes of several neighboring subchannels blanket each subchannel which consists of major and side lobes. The IFF Transform effects a filtration of the subchannels with frequency-shifted versions of one unique prototype filter. The low attenuation of the neighboring subchannels causes the side lobes to overlap as mentioned above.

A conventional transmission by frequency-division multiple access as it may be realized by means